

AMENDED CLAIMS

1.

A method of transmitting message data from an originating station (A) to a destination station (O) in a network comprising a plurality of stations (A to O), the method comprising:

monitoring, at the originating station (A), the activity of other stations (A to O) in the network; and

transmitting the message data to at least a first intermediate (B) station for onward transmission to the destination station (O);

characterised in that the method further comprises the step of

transmitting confirmation data back from the first intermediate station (B) to the originating station (A), indicative of the onward transmission of the message data,

and in that each station (A to O) in the network monitors the quality of the signal path to other stations and in that the selection of the first intermediate station (B) by the originating station (A) and the selection of any further intermediate stations (I,M) by the first or a subsequent intermediate station is made opportunistically, at the time of the transmission of the message data, according to predetermined criteria including the monitored quality of the signal path between the transmitting station and potential intermediate stations, so that transmissions take place during peaks of opportunity.

17.

A communication network comprising a plurality of stations (A to O) each able to transmit and receive message data, each station comprising:

transmitter means (12, 14, 18, 20) for transmitting data to other stations; and

receiver means (12, 14, 16, 20) for receiving data from other stations;

and characterised in that it further comprises:

monitoring means for monitoring at least one characteristic of respective channels between an originating station (A) and other stations; corresponding to the quality of the signal path via each of said channels;

decision means for opportunistically selecting another station as an intermediate station (B) for onward transmission of message data from the originating station (A) to a destination station (O), at the time of transmission of the message data, according to predetermined criteria including the monitored quality of the signal path between the transmitting station and potential intermediate stations, so that onward transmission takes place during peaks of opportunity; and

control means for adjusting at least one parameter of a transmission signal transmitted by the transmitter means according to the monitored at least one characteristic of the

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respective channel to increase the probability of the transmission signal being received successfully by the selected intermediate station.

25.

Communication apparatus for use as a station in a communication network comprising a plurality of stations (A to O) each able to transmit and receive message data, the communication apparatus comprising:

transmitter means (12, 14, 18, 20) for transmitting data to other stations; and

receiver means (12, 14, 16, 20) for receiving data from other stations;

and characterised in that it further comprises:

monitoring means for monitoring at least one characteristic of respective channels between the apparatus, operating as an originating station (A) and other stations;

decision means for opportunistically selecting another station (B) as an intermediate station for onward transmission of message data from the originating station (A) to a destination station (O), at the time of transmission of the message data, so that onward transmission takes place during peaks of opportunity; and

control means for adjusting at least one parameter of a

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transmission signal transmitted by the transmitter means according to the monitored at least one characteristic of the respective channel to increase the probability of the transmission signal being received successfully by the selected intermediate station.